### Issuing Date 16-Apr-2010

## SAFETY DATA SHEET

Revision Date 04-Nov-2015

**Revision Number** 2

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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| AHB472625PLT   |
|--|
|  |
| None   |
| and restrictions on use  |
| LITHIUM ION BATTERIES  |
| No information available   |
| data sheet   |
| Synergy  |
| 7F, No9, Park Avenue II,<br>Science-based Industrial Park<br>HsinChu<br>N/A<br>30077<br>TW |
| Phone:886-911254622<br>Fax:886-3-5646767<br>Contact Phone886-3-5643700                     |
| stellah0917@gmail.com  |
|  |

### Emergency telephone number

### 2. HAZARDS IDENTIFICATION

### **Classification**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.

| Skin corrosion/irritation         | Category 2 |
|-----------------------------------|------------|
| Serious eye damage/eye irritation | Category 2 |

| Skin sensitization                                 | Category 1  |
|--|-------------|
| Carcinogenicity                                    | Category 1B |
| Specific target organ toxicity (repeated exposure) | Category 1  |

### **GHS Label elements, including precautionary statements**

| Emergency Overview   |                       |                                  |           |
|--|-----------------------|----------------------------------|-----------|
| Signal word Da   | inger                 |                                  |           |
| <b>Hazard Statements</b><br>Causes skin irritation<br>Causes serious eye irritation<br>May cause an allergic skin reaction<br>May cause cancer |                       |                                  |           |
|  |                       |                                  |           |
| This product is an article which contain<br>Intended use of the product should not   | result in exposure to |                                  |           |
| Appearance No information available  | Physical state        | Solid containing liquid<br>Solid | Odor None |

### **Precautionary Statements - Prevention**

Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Wash face, hands and any exposed skin thoroughly after handling Contaminated work clothing should not be allowed out of the workplace Wear protective gloves Do not breathe dust/fume/gas/mist/vapors/spray Do not eat, drink or smoke when using this product Wear eye/face protection

### **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention Specific treatment (see supplemental first aid instructions on this label)

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

#### Skin

IF ON SKIN: Wash with plenty of soap and water Take off contaminated clothing and wash before reuse If skin irritation or rash occurs: Get medical advice/attention

### **Precautionary Statements - Storage**

Store locked up



### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

Not applicable

### Unknown Toxicity

33.48 % of the mixture consists of ingredient(s) of unknown toxicity

### Other information

May be harmful if swallowed May be harmful in contact with skin Very toxic to aquatic life with long lasting effects Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

### Interactions with Other Chemicals

No information available.

### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name                       | CAS No     | Weight-% | Trade Secret |
|-------------------------------------|------------|----------|--------------|
| Lithium Cobalt Oxide (CoLiO2)       | 12190-79-3 | 15 - 40  | *            |
| Carbon black                        | 1333-86-4  | 10 - 30  | *            |
| Aluminum                            | 7429-90-5  | 10 - 30  | *            |
| Copper                              | 7440-50-8  | 5 - 10   | *            |
| Ethylene carbonate                  | 96-49-1    | 3 - 7    | *            |
| Phosphate(1-), hexafluoro-, lithium | 21324-40-3 | 1 - 5    | *            |
| Nickel                              | 7440-02-0  | 0.1 - 1  | *            |
| Propylene imine                     | 75-55-8    | 0.1 - 1  | *            |
| Oxalic acid                         | 144-62-7   | < 0.1    | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret

### 4. FIRST AID MEASURES

### First aid measures

| General Advice                     | First aid is upon rupture of sealed battery.  |
|------------------------------------|---|
| Eye contact                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area. |
| Skin contact                       | Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.  |
| Inhalation                         | Remove to fresh air. Get medical attention immediately if symptoms occur.   |
| Ingestion                          | Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.   |
| Self-protection of the first aider | Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.<br>Wear personal protective clothing (see section 8).   |



### Most important symptoms and effects, both acute and delayed

| Most Important Symptoms and | Itching. Coughing and/ or wheezing. |
|-----------------------------|-------------------------------------|
| Effects                     |                                     |

#### Indication of any immediate medical attention and special treatment needed

Notes to Physician

May cause sensitization in susceptible persons. Treat symptomatically.

### **5. FIRE-FIGHTING MEASURES**

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific hazards arising from the chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

#### Hazardous Combustion Products

Carbon oxides.

#### Explosion Data Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

| Personal precautions                                 | Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. |  |  |
|--|--|--|--|
| Other Information                                    | Refer to protective measures listed in Sections 7 and 8.   |  |  |
| Environmental precautions                            |  |  |  |
| Environmental precautions                            | Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.   |  |  |
| Methods and material for containment and cleaning up |  |  |  |
| Methods for containment                              | Prevent further leakage or spillage if safe to do so.  |  |  |
| Methods for cleaning up                              | Pick up and transfer to properly labeled containers.   |  |  |



Handling

### 7. HANDLING AND STORAGE

### Precautions for safe handling

In case of rupture. Use personal protection equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

### Conditions for safe storage, including any incompatibilities

| Storage               | Keep containers tightly closed in a dry, cool and well-ventilated place. |
|-----------------------|--|
| Incompatible Products | Strong acids. Strong oxidizing agents. Strong bases.                     |

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

### Exposure Guidelines

| Chemical Name                                     | ACGIH TLV   | OSHA PEL   | NIOSH IDLH  |
|---|---|--|---|
| Lithium Cobalt Oxide (CoLiO2)<br>12190-79-3       | TWA: 0.02 mg/m <sup>3</sup>                           | -  |   |
| Carbon black<br>1333-86-4                         | TWA: 3 mg/m <sup>3</sup> inhalable fraction           | TWA: 3.5 mg/m <sup>3</sup><br>(vacated) TWA: 3.5 mg/m <sup>3</sup>   | IDLH: 1750 mg/m <sup>3</sup><br>TWA: 3.5 mg/m <sup>3</sup><br>TWA: 0.1 mg/m <sup>3</sup> Carbon black in<br>presence of Polycyclic aromatic<br>hydrocarbons PAH |
| Aluminum<br>7429-90-5                             | TWA: 1 mg/m <sup>3</sup> respirable fraction          | TWA: 15 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable fraction<br>(vacated) TWA: 15 mg/m <sup>3</sup> total<br>dust<br>(vacated) TWA: 5 mg/m <sup>3</sup><br>respirable fraction (vacated)<br>TWA: 5 mg/m <sup>3</sup> Al Aluminum | TWA: 10 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable dust  |
| Copper<br>7440-50-8                               | TWA: 0.2 mg/m³ fume TWA: 1<br>mg/m³ Cu dust and mist  | TWA: 0.1 mg/m <sup>3</sup> fume<br>TWA: 1 mg/m <sup>3</sup> dust and mist<br>(vacated) TWA: 0.1 mg/m <sup>3</sup> Cu<br>dust, fume, mist   | IDLH: 100 mg/m <sup>3</sup> dust, fume and<br>mist<br>TWA: 1 mg/m <sup>3</sup> dust and mist<br>TWA: 0.1 mg/m <sup>3</sup> fume                                 |
| Phosphate(1-), hexafluoro-, lithium<br>21324-40-3 | TWA: 2.5 mg/m³ F                                      | TWA: 2.5 mg/m <sup>3</sup> F<br>TWA: 2.5 mg/m <sup>3</sup> dust<br>(vacated) TWA: 2.5 mg/m <sup>3</sup>  |   |
| Nickel<br>7440-02-0                               | TWA: 1.5 mg/m <sup>3</sup>                            | TWA: 1 mg/m <sup>3</sup><br>(vacated) TWA: 1 mg/m <sup>3</sup>   | IDLH: 10 mg/m <sup>3</sup><br>TWA: 0.015 mg/m <sup>3</sup>  |
| Propylene imine<br>75-55-8                        | STEL: 0.4 ppm<br>TWA: 0.2 ppm<br>S*                   | TWA: 2 ppm<br>TWA: 5 mg/m <sup>3</sup><br>(vacated) TWA: 2 ppm<br>(vacated) TWA: 5 mg/m <sup>3</sup><br>(vacated) S*<br>S*   | IDLH: 100 ppm<br>TWA: 2 ppm<br>TWA: 5 mg/m <sup>3</sup>   |
| Oxalic acid<br>144-62-7                           | STEL: 2 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup><br>(vacated) TWA: 1 mg/m <sup>3</sup><br>(vacated) STEL: 2 mg/m <sup>3</sup>  | IDLH: 500 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup><br>STEL: 2 mg/m <sup>3</sup>  |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

**Other Exposure Guidelines** 

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters

### Appropriate engineering controls



| Engineering Measures               | Showers<br>Eyewash stations<br>Ventilation systems   |
|------------------------------------|--|
| Individual protection measures, su | ch as personal protective equipment  |
| Eye/face protection                | If splashes are likely to occur:. Wear safety glasses with side shields (or goggles). None required for consumer use.  |
| Skin and body protection           | Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves.  |
| Respiratory protection             | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.   |
| Hygiene Measures                   | Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### **Physical and Chemical Properties**

| Physical state<br>Appearance<br>Color | Solid containing liquid, Solid<br>No information available<br>No information available | Odor<br>Odor Threshold | None<br>No information available |
|---------------------------------------|--|------------------------|----------------------------------|
| Property                              | Values   | Remarks Method         |                                  |
| рН                                    | No data available  | None known             |                                  |
| Melting / freezing point              | No data available  | None known             |                                  |
| Boiling point / boiling range         | No data available  | None known             |                                  |
| Flash Point                           | No data available  | None known             |                                  |
| Evaporation Rate                      | No data available  | None known             |                                  |
| Flammability (solid, gas)             | No data available  | None known             |                                  |
| Flammability Limit in Air             |  |                        |                                  |
| Upper flammability limit              | No data available  |                        |                                  |
| Lower flammability limit              | No data available  |                        |                                  |
| Vapor pressure                        | No data available  | None known             |                                  |
| Vapor density                         | No data available  | None known             |                                  |
| Specific Gravity                      | No data available  | None known             |                                  |
| Water Solubility                      | Insoluble in water   | None known             |                                  |
| Solubility in other solvents          | No data available  | None known             |                                  |
| Partition coefficient: n-octanol/wate |  | None known             |                                  |
| Autoignition temperature              | No data available  | None known             |                                  |
| Decomposition temperature             | No data available  | None known             |                                  |
| Kinematic viscosity                   | No data available  | None known             |                                  |
| Dynamic viscosity                     | No data available  | None known             |                                  |
| Explosive properties                  | No data available  |                        |                                  |
| Oxidizing properties                  | No data available  |                        |                                  |
| Other Information                     |  |                        |                                  |
| Softening Point                       | No data available  |                        |                                  |
| VOC Content (%)                       | No data available  |                        |                                  |
| Particle Size                         | No data available  |                        |                                  |
| Particle Size Distribution            |  |                        |                                  |



### **10. STABILITY AND REACTIVITY**

### **Reactivity**

No data available.

<u>Chemical stability</u> Stable under recommended storage conditions. <u>Possibility of Hazardous Reactions</u> None under normal processing. <u>Hazardous Polymerization</u> Hazardous polymerization does not occur.

<u>Conditions to avoid</u> None known based on information supplied. <u>Incompatible materials</u> Strong acids. Strong oxidizing agents. Strong bases. <u>Hazardous Decomposition Products</u> Carbon oxides.

### **11. TOXICOLOGICAL INFORMATION**

### Information on likely routes of exposure

| Product Information | Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:.  |
|---------------------|---|
| Inhalation          | Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.  |
| Eye contact         | Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to eyes. May cause redness, itching, and pain. May cause temporary eye irritation. |
| Skin contact        | Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to skin. Prolonged contact may cause redness and irritation.                       |
| Ingestion           | Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.           |

### **Component Information**

| Chemical Name                 | Oral LD50           | Dermal LD50         | Inhalation LC50 |
|-------------------------------|---------------------|---------------------|-----------------|
| Carbon black<br>1333-86-4     | > 15400 mg/kg (Rat) | > 3 g/kg (Rabbit)   | -               |
| Ethylene carbonate<br>96-49-1 | = 10 g/kg (Rat)     | > 3 g/kg (Rabbit)   | -               |
| Nickel<br>7440-02-0           | > 9000 mg/kg (Rat)  | -                   | -               |
| Propylene imine<br>75-55-8    | = 19 mg/kg (Rat)    | -                   | -               |
| Oxalic acid<br>144-62-7       | = 375 mg/kg (Rat)   | = 20000 mg/kg (Rat) | -               |

### Information on toxicological effects



| Symptoms | Erythema (skin redness). May cause redness and tearing of the eyes. Itching. Rashes. |
|----------|--|
|          | Hives  |

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

| Sensitization     | May cause sensitization in susceptible persons. May cause sensitization by skin contact. |
|-------------------|--|
| Mutanania Effecta | No information qualitable  |

Mutagenic Effects No information available.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name                                  | ACGIH | IARC                | NTP                    | OSHA |
|--|-------|---------------------|------------------------|------|
| Lithium Cobalt Oxide<br>(CoLiO2)<br>12190-79-3 | A3    | Group 2B            |                        | Х    |
| Carbon black<br>1333-86-4                      | A3    | Group 2B            |                        | Х    |
| Nickel<br>7440-02-0                            |       | Group 1<br>Group 2B | Reasonably Anticipated | Х    |
| Propylene imine<br>75-55-8                     | A3    | Group 2B            | Reasonably Anticipated | Х    |

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

**Reproductive toxicity** No information available.

STOT - single exposure No information available.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE).

**Chronic Toxicity** No known effect based on information supplied. Contains a known or suspected carcinogen. Avoid repeated exposure. Prolonged exposure may cause chronic effects. May cause adverse liver effects. Carbon black has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

# Target Organ EffectsRespiratory system. Eyes. Skin. Gastrointestinal tract (GI). Kidney. Liver. Lymphatic<br/>System. Lungs.

Aspiration Hazard No information available.

#### Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 2,819.00 mg/kg ATEmix (dermal) 2,552.00 mg/kg (ATE) ATEmix (inhalation-gas)



IARC (International Agency for Research on Cancer)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

### 66,526.65 ppm (4 hr) ATEmix (inhalation-dust/mist) 33.33 mg/l ATEmix (inhalation-vapor) 333.27 ATEmix

### **12. ECOLOGICAL INFORMATION**

<u>Ecotoxicity</u> Very toxic to aquatic life with long lasting effects.

| Chemical Name             | Toxicity to Algae  | Toxicity to Fish   | Toxicity to<br>Microorganisms | Daphnia Magna (Water<br>Flea)              |
|---------------------------|--|--|-------------------------------|--|
| Carbon black<br>1333-86-4 |  |  |                               | 24h EC50: > 5600 mg/L                      |
| Copper<br>7440-50-8       | 96h EC50: 0.031 - 0.054<br>mg/L (Pseudokirchneriella<br>subcapitata) 72h EC50:<br>0.0426 - 0.0535 mg/L<br>(Pseudokirchneriella<br>subcapitata) | 96h LC50: 0.0068 - 0.0156<br>mg/L (Pimephales promelas)<br>96h LC50: = 1.25 mg/L<br>(Lepomis macrochirus) 96h<br>LC50: = 0.052 mg/L<br>(Oncorhynchus mykiss) 96h<br>LC50: = 0.2 mg/L<br>(Pimephales promelas) 96h<br>LC50: < 0.3 mg/L<br>(Pimephales promelas) 96h<br>LC50: = 0.112 mg/L<br>(Poecilia reticulata) 96h<br>LC50: = 0.3 mg/L (Cyprinus<br>carpio) 96h LC50: = 0.8<br>mg/L (Cyprinus carpio) |                               | 48h EC50: = 0.03 mg/L                      |
| Nickel<br>7440-02-0       | 72h EC50: = 0.18 mg/L<br>(Pseudokirchneriella<br>subcapitata) 96h EC50:<br>0.174 - 0.311 mg/L<br>(Pseudokirchneriella<br>subcapitata)          | 96h LC50: > 100 mg/L<br>(Brachydanio rerio) 96h<br>LC50: = 1.3 mg/L (Cyprinus<br>carpio) 96h LC50: = 10.4<br>mg/L (Cyprinus carpio)  |                               | 48h EC50: > 100 mg/L 48h<br>EC50: = 1 mg/L |
| Oxalic acid<br>144-62-7   |  | 24h LC50: = 4000 mg/L<br>(Lepomis macrochirus)   |                               | 48h EC50: 125 - 150 mg/L                   |

### Persistence and Degradability

No information available.

### Bioaccumulation

No information available

| Chemical Name | Log Pow |
|---------------|---------|
| Oxalic acid   | -0.81   |
| 144-62-7      |         |

### Other adverse effects

No information available.



### **13. DISPOSAL CONSIDERATIONS**

### Waste treatment methods

**Disposal methods** 

Should not be released into the environment.

**Contaminated Packaging** 

Dispose of contents/containers in accordance with local regulations.

| Chemical Name              | RCRA - Halogenated<br>Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|----------------------------|---|------------------------|------------------------|------------------------|
| Propylene imine<br>75-55-8 |   | P067                   |                        |                        |

#### California Hazardous Waste Codes 181

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name                               | California Hazardous Waste       |
|---|----------------------------------|
| Lithium Cobalt Oxide (CoLiO2)<br>12190-79-3 | Тохіс                            |
| Aluminum<br>7429-90-5                       | Ignitable powder                 |
| Copper<br>7440-50-8                         | Тохіс                            |
| Nickel<br>7440-02-0                         | Toxic powder<br>Ignitable powder |
| Oxalic acid<br>144-62-7                     | Тохіс                            |

### **14. TRANSPORT INFORMATION**

| Note:   | The transportation of primary lithium cells and batteries is regulated by the International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation Ilisted in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule) Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "special provision A45 of IATA-DGR" or "special provision 188 of IMO-IMDG Code" |
|---|--|
| DOT<br>Proper Shipping Name<br>Hazard Class<br>Emergency Response Guide<br>Number | NOT REGULATED<br>NON REGULATED<br>N/A<br>147   |
| TDG   | Not regulated  |
| <u>MEX</u>  | Not regulated  |
|   | Not regulated  |



| IATA<br>Proper Shipping Name<br>Hazard Class | Not regulated<br>NON REGULATED<br>N/A |
|--|---------------------------------------|
| IMDG/IMO<br>Hazard Class<br>EmS-No.          | Not regulated<br>N/A<br>F-A, S-I      |
| RID  | Not regulated                         |
| ADR  | Not regulated                         |
| ADN  | Not regulated                         |

### **15. REGULATORY INFORMATION**

### International Inventories

| TSCA | Complies   |
|------|--|
| DSL  | All components are listed either on the DSL or NDSL. |

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name                              | CAS No     | Weight-% | SARA 313 - Threshold<br>Values % |
|--|------------|----------|----------------------------------|
| Lithium Cobalt Oxide (CoLiO2) - 12190-79-3 | 12190-79-3 | 15 - 40  | 0.1                              |
| Aluminum - 7429-90-5                       | 7429-90-5  | 10 - 30  | 1.0                              |
| Copper - 7440-50-8                         | 7440-50-8  | 5 - 10   | 1.0                              |
| Nickel - 7440-02-0                         | 7440-02-0  | 0.1 - 1  | 0.1                              |
| Propylene imine - 75-55-8                  | 75-55-8    | 0.1 - 1  | 0.1                              |
| SARA 311/312 Hazard Categories             |            |          |                                  |
| Acute Health Hazard                        | No         |          |                                  |
| Chronic Health Hazard                      | No         |          |                                  |
| Fire Hazard                                | No         |          |                                  |
| Sudden release of pressure hazard          | No         |          |                                  |
| Reactive Hazard                            | No         |          |                                  |

### CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name       | CWA - Reportable<br>Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous<br>Substances |
|---------------------|--------------------------------|------------------------|---------------------------|-------------------------------|
| Copper<br>7440-50-8 |                                | Х                      | X                         |                               |
| Nickel<br>7440-02-0 |                                | X                      | X                         |                               |

### CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name Hazardous Substances RQs Extremely Hazardous Substances RQs RQ |  |
|--|--|
|--|--|



| Copper<br>7440-50-8        | 5000 lb |      | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |
|----------------------------|---------|------|--|
| Nickel<br>7440-02-0        | 100 lb  |      | RQ 100 lb final RQ<br>RQ 45.4 kg final RQ  |
| Propylene imine<br>75-55-8 | 1 lb    | 1 lb | RQ 1 lb final RQ<br>RQ 0.454 kg final RQ   |

### US State Regulations

### **California Proposition 65**

This product contains the following Proposition 65 chemicals.

| Chemical Name             | California Proposition 65 |
|---------------------------|---------------------------|
| Carbon black - 1333-86-4  | Carcinogen                |
| Nickel - 7440-02-0        | Carcinogen                |
| Propylene imine - 75-55-8 | Carcinogen                |

### U.S. State Right-to-Know Regulations

| Chemical Name                               | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|---|------------|---------------|--------------|--------------|----------|
| Lithium Cobalt Oxide (CoLiO2)<br>12190-79-3 | Х          |               | X            | Х            | Х        |
| Carbon black<br>1333-86-4                   | Х          | X             | Х            |              | Х        |
| Aluminum<br>7429-90-5                       | Х          | Х             | Х            | Х            |          |
| Copper<br>7440-50-8                         | Х          | Х             | Х            | Х            | Х        |
| Ethylene carbonate<br>96-49-1               |            | Х             | Х            |              |          |
| Diethyl carbonate<br>105-58-8               | Х          | Х             | Х            |              |          |
| Nickel<br>7440-02-0                         | Х          | Х             | Х            | Х            | Х        |
| Propylene imine<br>75-55-8                  | Х          | Х             | Х            | Х            | Х        |

### International Regulations

### Mexico

### National occupational exposure limits

| Component             | Carcinogen Status | Exposure Limits                    |
|-----------------------|-------------------|------------------------------------|
| Carbon black          |                   | Mexico: TWA 3.5 mg/m <sup>3</sup>  |
| 1333-86-4 ( 10 - 30 ) |                   | Mexico: STEL 7 mg/m <sup>3</sup>   |
| Aluminum              |                   | Mexico: TWA= 10 mg/m <sup>3</sup>  |
| 7429-90-5(10 - 30)    |                   |                                    |
| Copper                |                   | Mexico: TWA= 1 mg/m <sup>3</sup>   |
| 7440-50-8 (5 - 10)    |                   | Mexico: TWA= 0.2 mg/m <sup>3</sup> |
|                       |                   | Mexico: STEL= 2 mg/m <sup>3</sup>  |
| Nickel                |                   | Mexico: TWA 1 mg/m <sup>3</sup>    |
| 7440-02-0 ( 0.1 - 1 ) |                   |                                    |
| Propylene imine       | A3                | Mexico: TWA 2 ppm                  |
| 75-55-8 (0.1 - 1)     |                   | Mexico: TWA 5 mg/m <sup>3</sup>    |
| Oxalic acid           |                   | Mexico: TWA 1 mg/m <sup>3</sup>    |
| 144-62-7(< 0.1)       |                   | Mexico: STEL 2 mg/m <sup>3</sup>   |

Mexico - Occupational Exposure Limits - Carcinogens

A3 - Confirmed Animal Carcinogen

Canada WHMIS Hazard Class Not determined



| 16. OTHER INFORMATION                          |  |                |                   |                                  |
|--|--|----------------|-------------------|----------------------------------|
| NFPA   | Health Hazards 1   | Flammability 0 | Instability 0     | Physical and<br>Chemical Hazards |
| HMIS   | Health Hazards 0   | Flammability 0 | Physical Hazard 0 | Personal Protection              |
| Prepared By                                    | Product Stewardship<br>23 British American Blvd.<br>Latham, NY 12110<br>1-800-572-6501 |                |                   |                                  |
| Issuing Date<br>Revision Date<br>Revision Note | 16-Apr-2010<br>04-Nov-2015<br>No information available                                 |                |                   |                                  |

### Disclaimer

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### End of Safety Data Sheet